



Launch Mission Execution Forecast

Mission: Atlas V CST-100 OFT-2

Issued: 27 Jul 2021 / 0800L (1200Z)

Valid: 30 Jul 2021 / 1443 – 1503L (1843 – 1903Z)



Forecast Discussion: *There has been no significant change to the forecast reasoning.* South to southwest flow, combined with a plume of deep moisture over the area, will lead to a typical summer pattern of afternoon showers and thunderstorms over the Space Coast. Isolated convection is expected to develop along the east coast sea breeze early each afternoon before the boundary pushes slowly inland and storms increase in coverage through the day. This pattern of showers and storms favoring the eastern half of the peninsula is expected to hold through much of the upcoming week. Surface winds are expected to remain below constraints outside of any thunderstorms, which could produce brief wind gusts in excess of 30 knots. Given the time of day of the launch on Friday, a weather-related violation is likely during Friday's countdown due to isolated to scattered showers and thunderstorms in the vicinity, particularly west, of Space Launch Complex 41. At this time, the probability of violation remains at 60%, with the primary concerns being the Cumulus Cloud, Surface Electric Fields, and Lightning Rules.

Launch Day	Probability of Violating Weather Constraints						
	60%	Primary Concerns: Cumulus Cloud Rule, Surface Electric Fields Rule, Lightning Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	Isolated Storms / 7 mi.	Clouds				Solar Activity: Low
	Temp/Humidity:	87°F / 74%	Type	Coverage	Base (ft)	Tops (ft)	
Ground Winds (230'):	180° 8 - 14 knots	Cumulonimbus	Scattered	3,000	30,000		
		Cirrus	Scattered	28,000	34,000		
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear and solar activity.							
Next Forecast Will Be Issued		28 Jul 2021					